

Notetaking

A. Making a Note System

Notetaking is really the foundation of your study habits and ability to learn.

1. **Paper:** Get a notebook, folder, binder, to organize your notes and handouts for each class.
2. **Digital:** Create a folder in your OneDrive for each class. If you are taking notes on the computer, store in these folders.

Why?

- Quickly find class topics to review or use on homework.
- Summarize what you need to know to focus on the most important.
- Taking notes is proven to be effective at retaining information better.
- Learn a lifelong skill for your career and personal life.



Handwriting notes is more effective than typing notes - muscle memory!

B. Taking Notes

You know where to find your materials, so now you can plan for just study time (not preparing every time).

1. **Before Class:** Look over the chapter, slides, or other materials available before you meet for class. Write down vocabulary or main ideas.
2. **In Class:** Listen for cues from instructors - written and said - and add those extra notes with the others.



Tips for class:

- Bring your books, notes, or other materials
- Sit close to the instructor so you can hear - and not be distracted!
- Keep your phone in your bag and on silent. Even a quick buzz can distract you from being in the zone.

C. Using Notes

First you hear/see new information to become familiar with it. This is only the first step in studying.

Active studying means you apply the information beyond hearing/seeing it.

1. Read or listen to the material in the classroom, online, or in the textbook.
2. Take notes, highlight, underline to note key ideas for later.



Next, begin **ACTIVE** studying:

1. Create your own study guide: List the big ideas and the supporting concepts or examples for each.
2. Write your own examples to connect with the ideas personally.
3. Make diagrams or illustrations to show connections.
4. Create a few quizzes for future study sessions.



Taking Notes

The best practice is to take notes during class and also after class with your homework and assigned readings/resources. You are essentially creating a summary of all your learning in one place so you can quickly review, study, and add notes.

Let's get started with how to take notes! Follow the steps below to learn some easy, effective ideas to take notes. Figure out what works best for you, and try them out.

Why take notes?

Because it will help you **be successful** in your course! Research shows again and again that **taking notes helps our brain retain information**. When you are actively interacting with new and learned information, your brain gets to “pick up” and “play” with the ideas and concepts – like vocabulary, examples, and processes. Notetaking is the best way to get actively learning and begin putting learned material into long-term memory.

You can be in control of your learning:

Taking notes seems like a simple step you can bypass, but it's really the foundation of your study habits! Notetaking allows your brain to “see” information you heard and to review information you read without scanning through a textbook/notes/slides and getting distracted or overwhelmed. The process of notetaking helps your brain focus on the cues to the important information so you can make connections between pieces of information.

Benefits - yay!

- Taking notes helps you track what you have heard, read, watched. That can be a time saver later!
- When you need to communicate a brief summary of something you heard, read, or watched, you can have some quick points to share.
- Become an overall better communicator! You will develop good listening skills and the ability to decide quickly if the information is most important or not. Then, you can share that with others and look like a pro!

1. Start Your Note System

While you can dive in and just start taking notes, knowing your resources and having a system to keep organized will help you quickly find the notes you're looking for without loss of time and getting frustrated. The system will look different for everyone – find what supports your success. Here are some quick tips and tools to set up your system:

Tools

- **Notebook:** Have a notebook for each course for hand-writing notes. Consider a folder or binder to organize any handouts or additional paper notes you have.
- **Digital Notes:** You can take digital notes - although research shows writing with your hand helps “write” it into your brain. Use an online tool, have a system on your computer, or in OneDrive to keep files and notes sorted and easily findable.

Resources

- **Lecture/Class Materials:** Print or save/bookmark any materials your instructor provides before class. Organize, review and write any pre-class questions in the margins
- **Textbooks:** Your course may have a paper or digital textbook. Some courses may have other main materials instead of a formal textbook.
- **Canvas:** Log in to your Canvas account to check your course materials available. There are often more materials beyond your textbook or class slides that could help you review concepts from class.

Why take the time to get set up? Can I just start taking notes?

When you take the time to prepare, you set yourself up for success. You change your mindset about what is possible in the class and the outcomes.

It has been said: “By failing to prepare, you are preparing to fail”. Like it or not, it's true :)

Another example of preparing is before chefs begin cooking, they practice *mise en place* – putting in place or gathering all their ingredients and tools so the cooking process is smooth.

Everybody needs to prepare so they can be successful!

2. Design Your Notes

Figure out what works best for you when taking notes. Try a format to begin. Not having a plan can feel good and low pressure to start, but eventually you'll form a system. It may take a while to figure out your rhythm, but you can speed up that discovery - and minimize note chaos - with trying a few things out intentionally. Check out examples at the end of this guide.

Dates	<ul style="list-style-type: none"> Put the date on the page when you start your notes. You can also add "class" or "textbook" to show where the notes are from. This may help your memory when you are reviewing later.
Important Information	<ul style="list-style-type: none"> Key words, vocabulary, and definitions Concepts and theories Dates and names Examples or case studies Diagrams for processes and systems
Color Coding	<ul style="list-style-type: none"> Choose a consistent color system. Always use a blue pen for one course and a black pen for another course. You can also use colors to help you visually organize your notes for vocabulary, examples, or other "themes". Use in moderation!
Cues to make a note (usually from instructor)	<ul style="list-style-type: none"> Things your teacher writes on the board "You may see this again" or "This will show up again" "This is important because..." "This is similar to/opposite of..."
Use shorthand to write quickly	<ul style="list-style-type: none"> Examples (Ex) And (+) With (w/) Question (?) Before (B4) Same as/similar (=) Approximately, Approx. (~)
Flags for Follow up	<ul style="list-style-type: none"> Leave space in margins so you can add notes later or questions and add textbook page numbers for easy finding. Have a special symbol or color, like a star or red pen, that cues you to return to it.



3. Notetaking Methods

There are a few well known notetaking setups. Take a look, try some out. Find what works best for your flow and the course material. Remember - make sure it *actually* works for you. Some people love a rigid structure to rely on, and some like more flexibility.

The Cornell Method

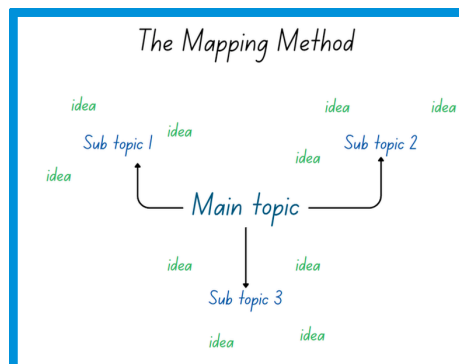
Cue	Notes
Main topic 1	<ul style="list-style-type: none"> • Main notes about topic 1 • Lists • Book recommendations
Main topic 2	<ul style="list-style-type: none"> • Main notes about topic 2 • Quotes • Book recommendations
<p>Summary</p> <p>A detailed summary of the topics</p>	

Cornell Method - Good to use as a study guide. May be best to re-write notes.

The Outline Method

<p><u>Main topic 1</u></p> <ul style="list-style-type: none"> • Subtopic <ul style="list-style-type: none"> ◦ specific thought on the subtopic
<p><u>Main topic 2</u></p> <ul style="list-style-type: none"> • Subtopic <ul style="list-style-type: none"> ◦ specific thought on the subtopic
<p><u>Main topic 3</u></p> <ul style="list-style-type: none"> • Subtopic <ul style="list-style-type: none"> ◦ specific thought on the subtopic

Outlining Method - Good for information that comes logically, like listening to a lecture.

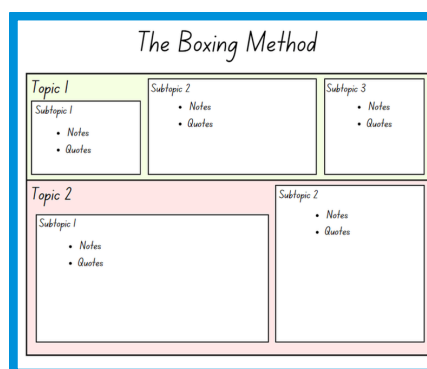


Mapping Method - Good to use when ideas have connections and visually it is easier to see than just words.

The Charting Method

Method	Benefits	Drawbacks	Opinion
Method 1	<ul style="list-style-type: none"> • Benefit 1 • Benefit 2 • Benefit 3 	<ul style="list-style-type: none"> • Drawback 1 • Drawback 2 • Drawback 3 	Opinion notes
Method 2	<ul style="list-style-type: none"> • Benefit 1 • Benefit 2 • Benefit 3 	<ul style="list-style-type: none"> • Drawback 1 • Drawback 2 • Drawback 3 	Opinion notes
Method 3	<ul style="list-style-type: none"> • Benefit 1 • Benefit 2 • Benefit 3 	<ul style="list-style-type: none"> • Drawback 1 • Drawback 2 • Drawback 3 	Opinion notes

Charting Method - Good for information that is able to be compared side-by-side.



Boxing Method - Good for re-writing notes to see grouping. Could be used in class for visual learners.

4. When to Take Notes

Yes, taking notes before class is a thing. Remember, it's all about setting YOURSELF up for success. Do well in each step, and success grows.

BEFORE Class

Come prepped by looking over what you will study:

1. Read chapters in the textbook that are on the day's topic in class.
2. Review any instructor materials: Videos, Emails, Announcements
3. Take notes on main points and write questions from the reading or instructor materials.
4. Bring your class tools and resources you may need to use or access during class (like PowerPoints, textbook, etc.).

How to Take Textbook Notes

1. **First, read the textbook chapter and mark main ideas.** Get the big main ideas first, then figure out the details of each concept next.
2. **Next, go back through the chapter and highlight the relevant information** in each concept (bold/italicized/colored/bulleted). Careful not to highlight everything – you won't know which are the most important parts!
3. **Lastly, look again at the charts, diagrams, and illustrations.** Make connections between the text and what the illustration shows. Ask questions and write down ones you may need to ask a classmate, instructor, tutor, or Academic Coach.
4. **If available, review end of chapter summaries, quizzes, or key points.** Compare your notes to the summaries to make sure you're on track. Practice with quizzes or discussion questions – this gets you actively engaged with the learning process.

DURING Class

Get focused in and make the most of your classroom time:

1. Actively Listen
 - Sit in an area where you can hear and comfortably take notes.
 - If friends can distract you, find an independent seat and catch up with them after class.
 - Put your phone on silent or use the Focus mode to limit notifications.
2. Engage and Ask Questions:
 - Remember, if you are thinking of a question, someone else probably is too!
 - Write questions in your note margins and ask your teacher during or after class.
 - When there is a discussion activity in class, refer back to your notes.



How to Take **Class** Notes

1. **Every instructor has a different style of teaching.** It may take a few classes to figure out what method of notes works best in each course.
2. **Write down main ideas, vocabulary, and examples.** Add enough details so you know what the notes are talking about.
3. **Avoid writing complete sentences your instructor says.** Your notes should be brief, and you can fill in or look up missing information after class.
4. **Be flexible.** You may have less control on how your notes look or the flow of ideas as you capture the ideas during a live class. Sometimes it's unpredictable!

5. Review Notes

The notes are taken...but now you need to use them:

- **Review:** Review your notes a little at a time like 15 minutes per day. You can chunk up the material in small parts, like a snack, and review over a few weeks. It won't be overwhelming since you don't need to tackle it all at once.
- **Re-write/Copy:** Writing notes again gets you another layer "written" in your brain as well as a review of concepts. You can also better organize your notes for more studying.
- **Make flashcards or draw diagrams:** Make flashcards so you can test yourself. It's also a good review of your notes. Draw out processes and diagrams to review and build connections.
- **Memorizing:** For some tests/assessments you have to know the material without any resources available. For memorizing, here are a few tips:
 - **Line-by-Line** - Read line, repeat, read line, repeat, etc. until a full section is learned
 - **Simple Stories** - Make up simple, silly stories to help you retain important information
 - **Mnemonic Devices/Acronyms** - Use a familiar word where every letter has a word/meaning associated with it. For example, EGBDF (Every Good Boy Does Fine) helps learners remember the musical line notes on the treble clef for music.
- **Test Yourself:** Use your copied notes, flashcards, diagrams, and acronyms to test yourself:
 - Cover your notes or flip to one side or the other of your flashcards and guess definitions or vocabulary.
 - Teach or explain material to a friend or family member. This forces you to recall without your notes or referencing notes very little.

6. Assess Notetaking Skills

You know HOW to take notes and WHEN to take notes. It can be good to take a moment to assess if your notes are working for you - or are you working for your notes.

Ask yourself these questions each semester:

1. Are your class notes confusing to go back to? Can you find the right ones?
2. Can you easily read your notes?
3. Is it easy to navigate your notes: finding dates, topic labels, or key concepts?
4. Can you find questions from pre-class notes or class notes to ask the instructor?
5. Do you like the note format and enjoy using it? Or is it a drain on your study energy?

Remember:

1. It doesn't have to be perfect! Your notetaking style will develop over time. Try out highlighting or using the Cornell method if you haven't before. Test it out!
2. You'll develop a *typical* notetaking style. You will definitely have classes or other learning where a different format may work better - be adaptable to best fit your learning.

Wow! You did it! Amazing!

You CAN do this!

1. Start a usable system (usable for you!)
2. Design Your Notes
3. Notetaking Methods
4. When to Take Notes
5. Review Notes
6. Assess Your Notetaking Skills

7. Examples

Class - Chapter 4

4.23.25

Polynomials: constants, variables and exponents

example: $x^2 + x - 12 = 3$

Textbook: Personality

Tues, Sept 17

Traits: A characteristic of individual, habitual

- • behaving
- thinking
- feeling.

Math Notes Example

Production, Labor Demand, and Endogenous:

marginal product = $MPL = \frac{\partial Y}{\partial L}$ } firm hire rule: $W = MPL$ $Y = L^{1-\alpha}$ $MPL = (1-\alpha)L^{-\alpha} = \alpha$ $\frac{\partial W}{\partial L} = \frac{\partial}{\partial L} (1-\alpha)L^{-\alpha} = -\alpha(1-\alpha)L^{-\alpha-1}$ $\frac{\partial W}{\partial L} = -\alpha \frac{W}{L}$

marginal cost = $MC = \frac{\partial C}{\partial Q}$ $C = \frac{1}{\alpha} L^\alpha$ $MC = \frac{\partial}{\partial Q} \left(\frac{1}{\alpha} L^\alpha \right) = L^{\alpha-1}$

elasticity: $\frac{\partial Q}{\partial L} \frac{L}{Q} = \frac{\partial Y}{\partial L} \frac{L}{Y} = \frac{MPL}{Y} L = \frac{\alpha}{1-\alpha}$

$Y = A F(L)$
 $mL = A F'(L)$

Immigration:
 - effect depends on elasticity of L

min wage:

price increase:

- in a monopoly only one worker hired before min wage, $18 - 4 = 14$ $24 - (2 \cdot 8) = 8$
 - min wage of 9 leads to two workers being hired
 - monopoly maximizes $Y - WL$

PS2, PS3

Growth and Fluctuations:

$\ln(Y_t) - \ln(Y_{t-1}) = \frac{Y_t - Y_{t-1}}{Y_{t-1}}$

$Z_t = Y_t - Y_{t-1}$ growth rate of Y = growth rate of Z + growth rate of Y

log rule: GDP ↑, consumer less volatile than GDP, investment more volatile, PS4

Production Technology and the Labor Market

returns to scale:

constant if $F(aL, bK) = a F(L, K)$

increasing if $F(aL, bK) > a F(L, K)$

decreasing if $F(aL, bK) < a F(L, K)$

Cobb-Douglas: $Y = A K^\alpha L^{1-\alpha}$

constant returns to scale

$W = MPL = (1-\alpha) A K^\alpha L^{-\alpha} = (1-\alpha) \left(\frac{Y}{L} \right)$

$r = MPK = \alpha A K^{\alpha-1} L^{1-\alpha} = \alpha \frac{Y}{K}$

More share of income = $WL/Y = 1-\alpha$

Capital share of income = $rk/Y = \alpha$

monopoly maximizes $Y - WL$

$\frac{Y}{L} = A K^\alpha L^{-\alpha} = A \left(\frac{K}{L} \right)^\alpha$

$\frac{Y}{K} = A K^{\alpha-1} L^{1-\alpha} = A \left(\frac{L}{K} \right)^{1-\alpha}$

